

# VIRGINIA WILDLIFE

JULY 1995

ONE DOLLAR





## Director's Column

William L. Woodfin, Jr.



The Department of Game and Inland Fisheries is forging an even stronger connection

with the public it serves. Our success depends upon the satisfaction of our license buyers and other customers, so we consider it essential to obtain public input on changes in hunting and fishing regulations. The importance of the public input cannot be over-emphasized.

An example of this could be seen at the March meeting of the Board of Game and Inland Fisheries when it was time for the biennial review of hunting regulations. Proposals from our Wildlife Division included alterations to the deer season in some places of the state, but the main focus was the suggested reduction of the fall turkey season. In some locations Virginia has had as many as eight or nine weeks for turkey hunting. This made the Commonwealth's season the longest in the country. For the sake of managing the turkey population for maximum growth and health, we proposed reducing this long season.

Considering the importance of these proposals, the Board wanted to obtain as much public response to the proposals as possible. To accomplish this, a series of well-publicized public input meetings were scheduled. These meetings provided the appropriate opportunity to hear from constituents first-hand, and they gave constituents an opportunity to meet Board members, game wardens, and department scientists.

Twelve meetings were held across the state during the first part of April. More than 1,000 constituents attended, and many of these shared their thoughts on the proposed regulations. Because the proposed changes to the turkey season generated the most interest, the department prepared a video that summarized wildlife management concerns for the consumptive and non-consumptive enjoyment of wild turkeys. The video allowed the department to provide uniform statewide presentation of the staff proposal to shorten the fall turkey season.

Oral and written comments from the public covered all proposals. The public didn't seem to agree with reducing the fall season to five weeks, and that view was conveyed to the Board members who attended the public input meetings. Ultimately, at its May meeting, the Board approved a compromise season reduction to six weeks in the areas that previously had eight and nine week seasons. This public input process

was a benchmark effort in the state's turkey hunting regulatory process. Incidentally, even with the reduction, Virginia continues to offer one of the longest fall turkey seasons in the country.

Several other topics considered by the Board proved to be of public interest. The issue of allowing scopes on muzzleloading guns during the special muzzleloading season was raised by the public at the March Board meeting, and the Board chose to carry it forward into the statewide public comment process. The Board considered the opinions it received, and ultimately voted to allow scopes. It was argued that better optical sighting ability would provide for more efficient harvesting of legal game. Scopes are legal during the general firearms season, and the new regulation will give the 80,000 muzzleloader license buyers in Virginia the freedom to choose whether they also use scopes.

Some areas in Virginia had changes made in days available for either-sex deer hunting, and that specific information will be available in July with the publication of new regulations.

When the dust settled at the end of the May Board meeting, it was clear that the interests of the public had been served and that sound policies had been made regarding the management of wildlife populations.

# Public input and the difference it makes





## Virginia Wildlife Calendar 1995-1996

*The 1995-96 Virginia Wildlife Calendar  
has arrived!*

*Cover: Order your 1995-96 Virginia Wildlife Calendar today using the handy gray card in the middle of this magazine. You won't want to miss this year's stunning wildlife photos and valuable information about what's happening in the outdoors. Remember, this calendar runs from September through August and is still only \$6.50! It's a bargain that's hard to beat! American goldfinch on purple coneflower photo by Maslowski.*

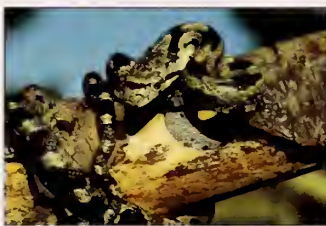
# VIRGINIA WILDLIFE



Doug Stamm  
page 4



Dwight Lyle  
page 15



David Liebman  
page 20

**Back cover:** Project Wild is opening the eyes of school children to the outdoors in Virginia. In this issue, read about this innovative and fun program that is reaching out to our schools throughout the state, photo by Dwight Dyke.

## Features

- 4 Heating Up On Summer Bass** by Gerald Almy  
Fishing for bass in the middle of the summer may not sound too exciting, but try some of these tactics to heat the angling up.
- 9 From Schoolhouse to Schoolyard, It's Totally WILD!** by Carol Heiser  
Project WILD is still going strong in Virginia.
- 15 A Southwest Virginia Secret—the Powell River** by Bob Gooch  
The Powell River is full of secrets, from its little known game fish to its spectacular scenery.
- 20 The Long and Short of It** by Joseph C. Mitchell  
Snake tales don't often measure up when it comes to taking a hard look at them from head to tail.
- 26 Mapping Your Strategy for Better Smallmouth Flyfishing** by Harry Murray  
First, learn to pinpoint the areas where smallmouth bass hang out in our rivers, then map out your strategy to outwit them.

## July Journal

- 31 Photo Tips
- 32 Boating Safety
- 33 Habitat
- 34 Recipes

*Dedicated to the Conservation of Virginia's Wildlife and Natural Resources*

# HEATING UP ON SUMMER



Dwight Dyke

by Gerald Almy

*Fishing for bass in the middle of the summer may not sound too exciting, but try some of these tactics to heat the angling up.*



Soc Clay

The July sun broke the horizon in a flush of orange through thin, wispy cirrus clouds as we eased away from the dock and cruised across the still waters of Lake Anna. In minutes we arrived at our destination—a thin-water flat just inside a feeder arm of

the main lake. Tossing topwater stickbaits and poppers, we probed the shallow water quickly with staccato, jerking retrieves—and were rewarded with five bold strikes and three big bass brought to the boat and released.

But as quickly as the surface action in the shallows started, it abruptly ended when a slight wind began ruffling the lake surface and the sun climbed above the clouds, beating down in a harsh, platinum-white glare. The flush of coolness that comes on some summer mornings had vanished. The air suddenly



# ER BASS



To find bass in summer, first look for a combination of deep water and structure. In a shallow lake this might be 15 or 20 feet; in a deep mountain lake it could mean 30 to 50 feet.

felt muggy and hot, almost palpable. Surface fishing and topwater action were now a thing of the past.

We weren't worried, though. My partner and I hadn't gotten up in the middle of the night and driven hours just to fish this brief flurry of frenzied morning surface action in shallow water. We knew that even though the bass had scurried to deep-water cover as the sun crested the shoreline trees, it didn't mean the fishing was through for the day. Scoring after the brief morning flur-

ry of surface action simply meant turning the boat around and probing the rest of the lake and adapting our tactics to meet the challenge of catching deep-water largemouths.

Heading to the main lake, we carefully marked several pieces of structure with buoys that we had previously located on topo maps, then returned and fished them diligently with a variety of top-producing deep summer offerings. And we came away with a catch (all released) of 11 bass for the 90 degree July day. Top fish weighed just over 5 pounds; several were in the 3 to 4-pound class.

Surprisingly, we had very little competition from other anglers for Lake Anna's bass that day. Although we enjoyed having the lake mostly to ourselves, it seemed a shame that more people weren't out taking up the challenge of deep-water summer bass fishing. Once you learn some specialized tactics, this action can be every bit as enjoyable as spring's frenzied shallow-water sport.

Before delving into strategies and lures, it's important to understand why bass go deep in summer. There are several reasons. For one, the fish have finished spawning. That was a large part of why they went into the shallows to begin with. The shallows are also warmer in the spring and hold more food, but by June lots of that food has vacated the thin water, and warmth is no longer an attraction. In fact, as lakes stratify in early summer, bass head deep to find the cooler temperatures they prefer at this time, and also sufficient oxygen.

To find bass in summer, look for a combination of deep water and structure. In a natural, shallow lake this might mean just 15 or 20 feet. In steep-topography mountain lakes like Smith Mountain or Moomaw, it could mean 30 to 50 feet. On piedmont lakes like Anna, Gaston and Buggs Island, often the 20 to 40-foot level is the payoff zone for hot-weather bass.

Structure can include points that drop off into deep water, humps, islands, reefs, sunken docks, bridge

pilings and old flooded roadbeds. A topographic map and depth finder are invaluable for pinpointing such structure. Find these types of fish-holding cover on the map before you go out and mark them. Then use sonar to pinpoint them on the water. Wherever possible, try to dig up topographic maps of the land made *before* the lake was formed. Cemeteries, submerged bridges, old homesites and other structures may not be shown on lake maps, but appear on those drawn before the impoundment was created.

The key to the best deep summer bass spots is often the river channel. This in itself is structure compared to the rest of the lake. When you find areas with additional cover on or near the river channel, such as a hump, brushpile or saddle, you've found a location that's almost sure to hold bass, possibly some very large ones.

You can try to fish the structure you find blindly, but since it's likely hundreds of yards from shore with no landmarks, it's difficult to keep right on top of the prime spot. And unless your lure works over the actual structure, bass are not going to take it.

The solution is to mark the cover with buoys. For a small specific spot such as an underwater brushpile or minor hump, a single buoy may work. If the area is more complex or larger, you'll want to put out two or even three buoys to mark the important edges of the cover and give yourself a visual picture above water of what the structure looks like. To make sure the bass aren't spooked by motoring over them and dropping off buoys, mark the area, then go to another spot for at least ten minutes to rest the location.

Once you find a prime piece of deep-water structure and catch fish on it, mark the location down in a notebook by using triangulation with points on land, or mark it on a topographic map for future reference. You can come back again and again to these deep-water structure areas and catch fish all summer long—especially if you release them unharmed.



If you are fishing a "clean" lake and can't find much structure that holds bass, consider creating some of your own (after checking to make sure this is permitted on the lake). Attach several cedar trees or wooden shipping crates together, anchor them with wire and cinder blocks, then drop them in 15-50 foot depths. Mark the spot using triangulation with points on land, then in a few weeks you'll have your own private deep-water fishing spot—one that will often hold crappies and catfish as well as bass.

A number of lures work well for summer bass, but a good one to start with is the humble grub. A leadhead jig with plastic twister tail is one of the most economical, simple and deadly of all hot-weather bass lures. Fish them on spin tackle with 4 to 8-pound line, in weights of 1/16, 1/8, 3/16, and 1/4 ounce. Colors that work well include smoke, motor oil, clear with glitter flakes, chartreuse, pumpkinseed, black and purple.

Cast out slightly beyond the pinpointed structure and watch the line as it falls and angles into the cover. Often fish will strike on the drop and just signal their presence by a slight hesitation or twitch in the line. Other times you'll feel a slight peck or tap on the line. Set the hook immediately. If no strike comes on the fall, work the lure back slowly and steadily. Pause occasionally to let the leadhead drop back down deeper like a wounded baitfish.

If grubs fail to produce, turn to

another excellent hot-weather offering—the plastic worm. Sometimes 4-inch versions are productive, but for most situations a 6, 7 or 8-inch worm is the best bet. Blue, black, purple, motor oil and pumpkinseed are top colors. Use a heavier baitcast outfit spooled with 10 to 17-pound line and rig the worm Texas-style. First thread a 1/8-3/16-ounce bullet sinker on the line, then pierce the worm for a quarter inch or so near the head with a 1/0-4/0 hook, pull the hook out, then reinsert it lower in the body so it is weedless but hangs straight. Vary the weight of the sinker according to how deep the water is and how much wind is

blowing. You want just enough so that the lure barely stays on the bottom. If worms don't produce, try one of the many soft plastic crayfish imitations available.

A good alternative method for fishing both worms and crayfish is the Carolina rig. First thread a 1/4-3/4-ounce egg or rounded bullet sinker on the line, then a plastic bead. Next tie on a barrel swivel. After that attach a leader of 3-5 feet and a light wire hook, then thread on a floating worm or crayfish, rigged with the hook embedded so it's weedless.

With both of these setups, reel the offering in slowly and steadily. The Texas rig can be hopped occasional-



Largemouth bass: photo by Doug Stamm



Lee Walker

The leadhead jig with a grub is one of the most economical, simple and deadly of all hot-weather bass lures.



Dwight Dyke

A plastic worm on a hook, rigged Texas-style, has proven an excellent summer bass lure.



Dwight Dyke

A good alternative method for fishing with either artificial worms or crayfish is the Carolina rig.



ly, but the Carolina rig should be fished smoothly with no manipulation. When a fish strikes, point the rod tip at it, take up slack, then pull back on the rod and reel simultaneously to drive the hook home.

If soft plastics don't produce, turn to the other end of the lure spectrum—hard metal. A slab or jigging spoon is one of the top offerings you can have in your arsenal for hot-weather bass. The Hopkins, made in Virginia, is the most famous of these lures. Different models are made by Luhr-Jensen, Mann's, Bass Pro, Strike King and others. Chrome, nickel and gold are all good finishes. Best sizes are 1/2, 3/4 and 1 ounce.

While plastics are cast and retrieved in the traditional manner, slab spoons are fished directly beneath the boat. Get right over top of the cover and lower the lure down to either the bottom or slightly above it where fish show on the depth finder. Raise the lure with a crisp lifting motion anywhere from 6 to 36 inches, then let it drop, but don't allow excess slack to form in the line as the lure descends. This is when fish usually strike. If there's slack in the line it's difficult to detect strikes and set the hooks quickly enough. Pause for several seconds between lifts of the rod.

The new breed of super-deep-

diving crankbaits make these lures—once considered shallow-water offerings—another good choice for summer bass. Jim Abers, a guide on Buggs Island and Gaston lakes says: "These new versions will get down 18-22 feet if you cast them far enough and keep your rod tip low or even buried in the water." While Abers often fishes worms, grubs and spoons, he turns to deep-running crankbaits when he finds fish on long points or offshore humps.

"Just be sure to cast far enough beyond the target so that the lure is at its maximum depth when you get to the area where the structure is. A soft-tip rod also works best, so you don't pull the lure away when the fish strikes."

Glenn Briggs, a full-time guide on Lake Anna, says he hates to troll, but sometimes this is one of the best ways to take deep summer bass. "We were primarily targeting stripers this past summer when we trolled large, deep-running crankbaits, but we also caught some walleyes and quite a few large bass."

"Trolling puts the lure down at the levels where fish are holding in the stratified lake during hot weather and keeps it there, increasing your effective fishing time," says Briggs. Find the same structure you would for casting, then motor slowly over it with several crankbaits either flat-lined or run on a downrigger at the level fish show up at on the depth finder.

Briggs showed me the productiv-



When soft artificial baits don't produce, an angler may turn to hard metal lures, such as a slab or jigging spoon.



Dwight Dyke

Trolling a large, deep-running crankbait can also hook a good-sized summer bass.



Gerald Almy

Three to five-inch shiners can produce strikes when other lures fall short.





ity of trolling for deep-summer largemouths this past July when we latched onto several stripers and half a dozen bass, including one heavyweight that threw my hook in a water-spraying leap. We estimated that bass weighed over 9 pounds.

While lures are most intriguing to fish, live bait is extremely effective on summer bass that are often concentrated in very tight areas. Which offering you use depends on the lake you're fishing. In waters where they're naturally found, the crayfish is hard to beat. Impale the crustaceans lightly through the rear of the tail on a size 2-4 hook and fish them with just one or two small split shot on 6-10-pound line. When a fish strikes, hesitate until the rod bends down, then drive the hook home.

A live offering that also works well on summer bass is the shiner. These baits are readily available on most lakes. In 3-5 inch sizes, they'll consistently draw strikes from jumbo summer bass when other offerings come up short.

Hook the shiner either through the back just below the dorsal or through both lips from the bottom up. Add a split shot or two for weight 12-18 inches up the line and cast out and retrieve very slowly, like a plastic worm, along the bottom. Alternately, you can position the boat right over the deep structure and lower the minnow down to the bottom, then raise it up a foot or two and drift or troll through the area where you suspect bass are holding. If snags are a problem,

*Summer bass fishing can be exciting and rewarding if you develop a strategy and find the right lures.*

switch to weedless hooks. When a fish taps on the offering, feed line for a few seconds, then sweep back with the rod and turn the reel handle at the same time to set the hook.

Whether you use bait or lures, don't overlook deep-water summer bass. They may take a while to pinpoint and require different tactics to catch, but deep, hot-weather largemouths can provide every bit as much excitement as spring's shallow fish. □

---

*Gerald Ahmy has been a full-time outdoor writer for over 17 years. He is currently a hunting and fishing editor on the staff of Sports Afield.*





Dwight Dyke

From schoolhouse  
to schoolyard,  
it's totally  
WILD!





Project WILD has been opening the eyes of schoolchildren to the natural world surrounding them for the past 13 years here in Virginia. Today, the program is still going strong—and growing into the schoolyards.



Dwight Dyke

by Carol A. Heiser

“**R**ead, ‘rite, and ‘rithmetic” have certainly come a long way from the days of reciting poetry by rote and copying columns of figures down from the blackboard. Today’s teachers combine several subjects at a time when they teach about a topic, and this has proved to be a ready-made avenue for students to learn about wildlife and conservation. Project WILD, a tried and true wildlife education program now in its 13th year in Virginia, has trained over 10,000 classroom teachers, scout leaders, and other educators



Dwight Dyke

Schoolteachers experience Project Wild firsthand in a teacher’s workshop which will certify them to bring the wildlife education program into their classrooms. Teachers learn the activities they will teach their students by testing them out on each other. One activity guaranteed to liven up any workshop is “First Impressions,” which uses a corn snake and a brown tarantula to break down stereotypes of “good” and “bad” wildlife. “Habittracks,” another Project Wild activity, teaches students mapping skills as they construct maps detailing where particular animals find food, water, shelter, and space, and then following the maps to these places.



using this "whole language" approach. Teaching about wildlife is still going strong in the 90's, and Project WILD, administered by the Virginia Department of Game and Inland Fisheries, has reached new dimensions as it expands from the classroom into the schoolyard.

From its earliest beginnings in a simple three-ring binder back in 1982, Project WILD's focus always has been on teaching an awareness and appreciation of wildlife and of wildlife's relationship to humans and the environment. The message at the front of every Project WILD guide sums it up well: "The time is overdue in developing a long-term approach to the problems of people, wildlife and habitat...The earth is home to us all."

What makes WILD unique is that it was one of the first conservation education programs developed whose goal went beyond the simplistic "let's learn about nature" approach. In essence, the mission of Project WILD is to provide wildlife-

involves a gradual process, and WILD ingeniously does this with the organization of its activities into a conceptual framework.

Project WILD begins with awareness and appreciation of wildlife, then moves into ecological principles and people, culture, and wildlife. The last topic in the WILD framework is "Responsible Human Actions," with activities designed to pull all the knowledge together and spark students' desire to act on what they have learned. We pose the question, "What can we do to improve wildlife habitat in our community?"

Helping to send this conservation message home, however, can be quite a challenge to educators. How do you train a teacher to show children that learning about wildlife can be fun? Easy. Practice the activities on the teachers themselves! At a typical workshop across the state, teachers learn concepts about wildlife ecology by creating make-believe birds out of construction

we'd be doing anything like this. I can't wait to try this with my kids!"

Each six-hour introductory workshop or four-hour aquatic workshop is custom-tailored to fit the needs of the teachers and youth group leaders who request it. Because WILD is so adaptable and interdisciplinary, the activities lend themselves well to different subjects and learning styles.

Try picturing a group of educators dissecting owl pellets, for example. In this activity, a science teacher may look at the pellets in terms of food webs, because they represent the indigestible bones, fur, and feathers of mammals and birds that the owl has eaten. A health teacher, on the other hand, may look at the pellets and decide, "here is a great way to teach the kids about anatomy." Or, the activity could be extended to include journal writing that describes what the student has learned about how owls eat, thus turning the subject into language arts. Even social studies could be in-



Dwight Dyke

based conservation and education that fosters responsible actions toward wildlife and related natural resources.

But, just how does one go about instilling knowledge and appreciation of wildlife and a positive sense of stewardship? Teaching someone how to think, not what to think, in-

paper for the "Adaptation Artistry" activity, or by running back and forth across a playing field as a deer looking for food, water or shelter in "Oh Deer."

And, it means having a lot of fun in the process. Project WILD workshop participants often say with much enthusiasm, "I had no idea



Dwight Dyke

corporated if the discussion is focused on how particular land use practices may affect small mammal populations that in turn may affect the availability of food for predators like the owl.

Around the world, Project WILD is internationally acclaimed, and the program is being used by several



countries including Canada, Sweden, Iceland, India and the Czech Republic. Here in the U.S., all 50 states, the District of Columbia, and Puerto Rico have a Project WILD coordinator who trains facilitators to lead workshops.

This dedicated corps of trained volunteers is the backbone of the Project WILD program. At last count, Virginia was home to 262 facilitators who volunteer their time when requests for workshops are made, often on weekends. Many of the facilitators are themselves teachers who have used the Project WILD materials in their own classrooms and appreciate their value. Other facilitators are college faculty who conduct workshops for pre-service teachers as part of their course credit. Still others work in public resource agencies, parks, nature centers, and as youth group leaders. Together, the collective commitment of these volunteers has ensured that WILD is used statewide and receives continuous recognition.

Today, Project WILD is helping teachers take students outside, beyond indoor reading and discovery into—quite literally—their own backyards: the schoolyard. The Virginia Schools Gardening for Wildlife program began piloting special workshops last year and teaching conservation at a broader level.

After all, salamanders, bats, insects, geese, and flying squirrels: all of these and thousands of other species that are not tamed or domesticated are “wildlife,” and we encounter them every day in one way or another. Or do we? Sometimes one has to be guided along and shown how to see what is around them and taught where to look before actually noticing that there are, say, butterfly eggs on a particular plant or a bird nest tucked away in a bush.

Co-sponsored by the Virginia Department of Game and Inland Fisheries and the Virginia Museum of Natural History, these new workshops target schools that have already started small plantings for wildlife, have adopted an environmental studies curriculum, or are

simply ready to “do more.” Incorporating activities from Project WILD and other activities like mapping and landscaping, each “Schoolyards” workshop trains all of the teachers at one school how to improve the grounds for wildlife and more effectively use the area as an outdoor classroom.

Since almost all of the Project WILD activities focus on the impor-

tance of habitat to wildlife in one way or another, taking children outside to do the activities helps them to see the “big picture” and understand firsthand just how interconnected all the parts of an ecosystem are. The schoolyard, itself a kind of habitat, now becomes an outdoor classroom where students can apply what they’ve learned indoors.

“Habitracks,” for example, is a



Dwight Dyke



Dwight Dyke

Workshop participants learn about the obstacles to migrating fish by taking part in “Hooks and Ladders,” a Project Wild activity that “acts out” the needs of anadromous fish as they swim upriver each spring to spawn.



Project WILD activity that lends itself well to the schoolyard setting. In this exercise, students identify the components of habitat—food, water, and shelter—by using a map and exploring their schoolgrounds. First, the teacher places tokens outside in areas where particular animals might find food, water, or shelter. The students must then “track down” where the habitat is that

would support those animals by finding the tokens.

Another version of the activity is to let the students brainstorm on their own where a particular animal might find these suitable elements. If the grounds are like most schoolyards—devoid of vegetation other than grass and one or two lonely trees—they soon discover that the schoolyard is rather bleak in terms

of wildlife habitat. They come to realize that the only wildlife they commonly see are a few sparrows, some crickets, and an occasional gray squirrel.

Making a link between learning and action becomes the last critical step to becoming a responsible conservationist. With the knowledge they gain from “Habitracks” and other activities like it, the students



*Left to right: Janet Lee, Lindsey Juzdan, Alex Phipps, Courtney Winston, and Adam Kauder of Gordon Elementary School examine a blooming wild azalea, one of the first signs of spring along the nature trail behind their school, as teachers begin to take Project Wild activities beyond the classroom and into the schoolyard in Virginia.*



are ready to explore the question, "Is there anything we can do here at school to provide more habitat for more wildlife species?" More importantly, perhaps, they will have broadened their horizons and begun to think more about their own backyards and their community as a whole. ("Gee, if we can improve habitat at school, maybe we can do this in town, too.") With every Project WILD and Gardening for Wildlife workshop, we get a little closer to that reality.

Generous support from the Virginia Division of the Izaak Walton League of America helps bring Project WILD into classrooms in Virginia. Additional support pours in from individual taxpayers who choose to have all or part of their income tax refund donated to the Nongame Wildlife Fund of the Department of Game and Inland Fisheries. Hunting and fishing licenses fees also support this vital education program. □

*Carol A. Heiser is the Wildlife Education Specialist for VDGIF.*



Dwight Dyke



Dwight Dyke

## Interested in a Workshop?

For information on attending or scheduling a Project WILD workshop or a Schools Gardening for Wildlife workshop, contact:

Suzie Gilley, Project WILD Coordinator  
Resource Education Division  
Va. Dept. Game & Inland Fisheries  
4010 W. Broad St.  
P.O. Box 11104  
Richmond, VA 23230-1104



Dwight Dyke

*Top: Ben Eames, Ashley Winston, Monica Nierle, and Deea Chakraborty of Gordon Elementary School examine a good hiding place for small animals in a tree behind their school—the first step toward becoming more aware of their natural surroundings as part of Project Wild's move from the classroom into the schoolyard. Above: Project Wild teaches teachers how to bring wildlife education into the classroom and outdoors in a fresh, creative, and fun way.*

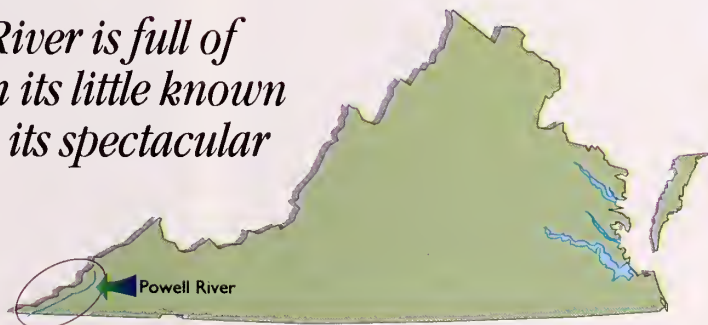




# A Southwest Virginia Secret— The Powell River

by Bob Gooch

*The Powell River is full of secrets, from its little known game fish to its spectacular scenery.*



Sauger and walleye—two unique fish, but hardly household names in Virginia. The walleye is the best known certainly, but did you ever catch a sauger in the Commonwealth? No, these are not Virginia bread-and-butter game fish.

But then, how many Virginia anglers fish the Powell River deep in



southwest Virginia? Drive over it on the U. S. Highway 58 bridge and you are in Cumberland Gap on the Kentucky border before you can say "Dan Boone." The Powell is a good 500 miles west of Virginia Beach.

Before we get too deeply into the fishing in this western Virginia river, let's take a look at the stream itself. Wise County can claim its headwaters, but the longest stretch belongs to Lee County. It has an interesting history, but its brightest years could well be in the future.

The Powell drains the rich coalfields of far southwest Virginia and therein lies its problems. The main stem, or the Powell River proper, rises in the George Washington and Jefferson National Forests north of Norton, arguably the coal mining capital of Virginia, and heads on a southeastern course between Divide and Rodgers ridges in some of the state's most remote and rugged mountain country. It skirts Norton, swings back to the southwest, and follows U. S. Highways 23 and Alternate 58 to Appalachia. Or maybe I should say the highway follows the stream, for it was there long before the river valley saw its first bulldozer.

The valley between Norton and Appalachia is deep, narrow, and wooded and shared by the river, the highway, and the CSX railroad. At Appalachia it swings southeast for a short distance to Big Stone Gap, and then takes a steady, but meandering, course southwest into Lee County and down the Powell Valley into Tennessee.

The South Fork of the Powell rises near the Scott-Wise counties border southeast of Norton, flows a southeasterly route through the Big Cherry Reservoir and then turns abruptly west to join the Powell River proper at Big Stone Gap. Butcher Fork also enters the system near Big Stone Gap, something we will comment on later.

Puckett and Stone Creeks join just west of Pennington Gap to form the North Fork of the Powell River which flows southeast through the little mountain city to enter the Powell River a few miles downstream from Big Stone Gap.

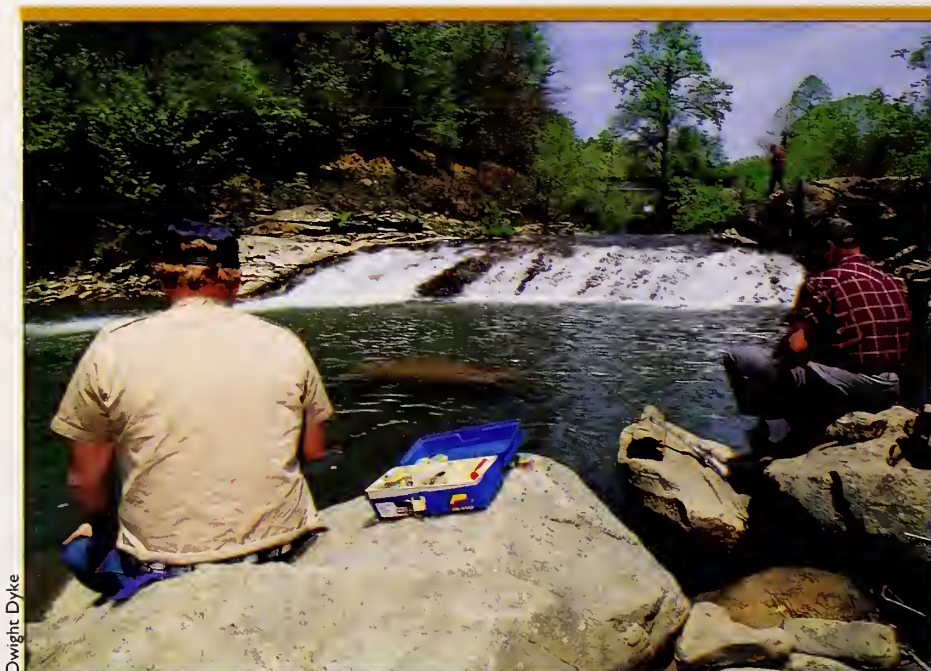
Both forks of the Powell are tumbling mountain streams in their headwaters, though the South Fork slows down considerably once it passes through the little community of Crackers Neck. The Powell prop-

er is a particularly fast mountain stream racing through a narrow corridor and tumbling over boulders between Appalachia and Big Stone Gap. Upstream of Big Stone Gap both Forks are best fished by wading.

"From Big Stone Gap to Tennessee the Powell is a low-gradient stream," said John Jessee, district fisheries biologist with the Virginia Department of Game and Inland Fisheries. "There is no dangerous water. It's a fine canoeing or float-fishing stream."

Powell River, Powell Valley through which the stream flows, and Powell Mountain which stands guard along its eastern banks are all named for Ambrose Powell, a frontiersman who explored the region with Thomas Walker when it was mostly Indian territory. A canoeist or float fisherman moving down the Powell River will brush the high bluffs and cliffs of wooded Wallen Ridge, a ridge between the river and higher Powell Mountain.

The fact that it drained the coalfields for years was one reason the Powell didn't attract more anglers in yesteryears. Mining pollutants in the way of acids and sediment did

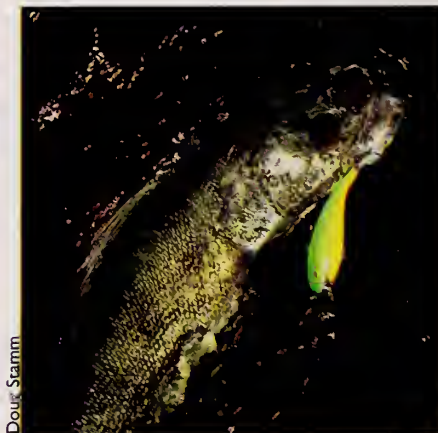


Dwight Dyke

The North Fork of the Powell upstream from Pennington Gap is stocked with trout, and sauger (above right) and walleye (right) make annual spawning runs up the Powell River out of Norris Lake in Tennessee.



Soc Clay



Doug Stamm





little for the fish populations. "Sediment from mining operations and farming are the major problems today," said Jessee. "The river muds quickly after a rain."

Mining acid is no longer much of a problem thanks to strict and well-enforced regulations and mined-land reclamation work. "Occasionally we get seepage from a sealed mine and have a fish kill," said Jessee, "but it's not a major problem today."

Big Stone Gap has been a prominent little city in the life of the Powell River. In fact, the city was once called Three Forks on the assumption that the North and South Forks of the Powell and the main stem met there. Or were the three forks the main stem, the South Fork, and Butchers Fork? The North Fork actually enters the stream several miles below Big Stone Gap. The name Three Forks stuck for awhile, but in 1890 it reverted to Big Stone Gap, the

name given the settlement by early frontiersmen in 1850.

The role Big Stone Gap plays in the life of the Powell River today is one of marking the point where the river becomes a public waterway. It is also the upstream limit of good canoeing and floating water. The stream and its tributaries above the little western city are best fished by wading.

"Daniel Boone followed the Powell Valley downstream to Cumberland Gap and on to Kentucky," said John Jessee. "There are approximately 90 miles of the river in Virginia," he added.

Though most of the river is considered public water, there is little or no developed public access, and no formal boat launching areas. Despite this lack of formal access, many anglers fish the river. Some wade the shallows, others fish from the banks, and the more serious fishermen use the numerous bridges to get boats or

canoes in and out of the river. U. S. Highways 58, Alternate 58, and 421, and a number of secondary highways cross the river and they can be used to launch light boats. Topo maps also show points where hand-carried boats can be launched. There are at least a half dozen of them, mostly far downstream where the river widens considerably.

While getting in and out of the river might require a little scouting, it is certainly possible. "It's easy to plan an eight to 10-hour trip," said Jessee. While there are no dangerous rapids downstream from Big Stone Gap, the current is strong enough to carry you along with a minimum of paddling. "It's a pretty river," said Jessee. "The Lee County section flows through farming country, but the river skirts many steep cliffs and wooded bluffs." Many of these are along Wallen Ridge on the east side of the river.



We've mentioned the sauger and walleye briefly. Both are native to the river, and the fishing is best in early spring when they are making their annual spawning runs. These fish move up the river out of Norris Lake in Tennessee and the best fishing is usually downstream toward the Tennessee line. The sauger and walleye are cousins, of course, in the perch family that also includes the yellow perch. The walleye is the largest of the three, but sauger run to good size also. They are best fished for at night and on cloudy days.

The sauger and walleye fishing are seasonal, but the bread-and-butter fish of the Powell include the smallmouth bass, rock bass, and redbreast sunfish, fish found pretty much throughout southwest Virginia where the water quality is good enough. These fish are found throughout the Powell River system and up the tributaries. The South Fork downstream from Cracker Neck is a gentle stream easy to wade, and it should hold fair populations of all three fish. It flows through private land, however, and prudence says get permission before you cross private property to enter the stream.

"Don't be surprised if you catch an occasional largemouth bass or spotted bass," said Jessee. "Actually, 63 species of fish have been identified in the Powell."

There are also good populations of both flathead and channel catfish in the river. The Powell is within the native range of the flathead cat, a catfish seen rarely in the eastern part of Virginia.

Another fish that gets a lot of attention from local anglers is the redhorse sucker. Like the sauger and walleye, it makes its annual spawning run up the river in the spring. As is true of suckers generally, the redhorse is a bottom feeder, and best caught on worms. "In the old days fishermen used freshwater mussels," said Jessee, "but the mussels are now protected in the Tennessee drainage of Virginia. Using them for bait is illegal."

Trout are stocked in the Powell proper between Norton and Ap-

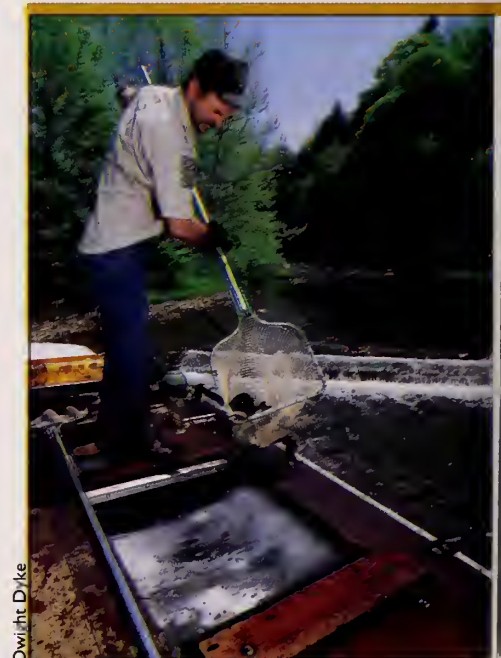
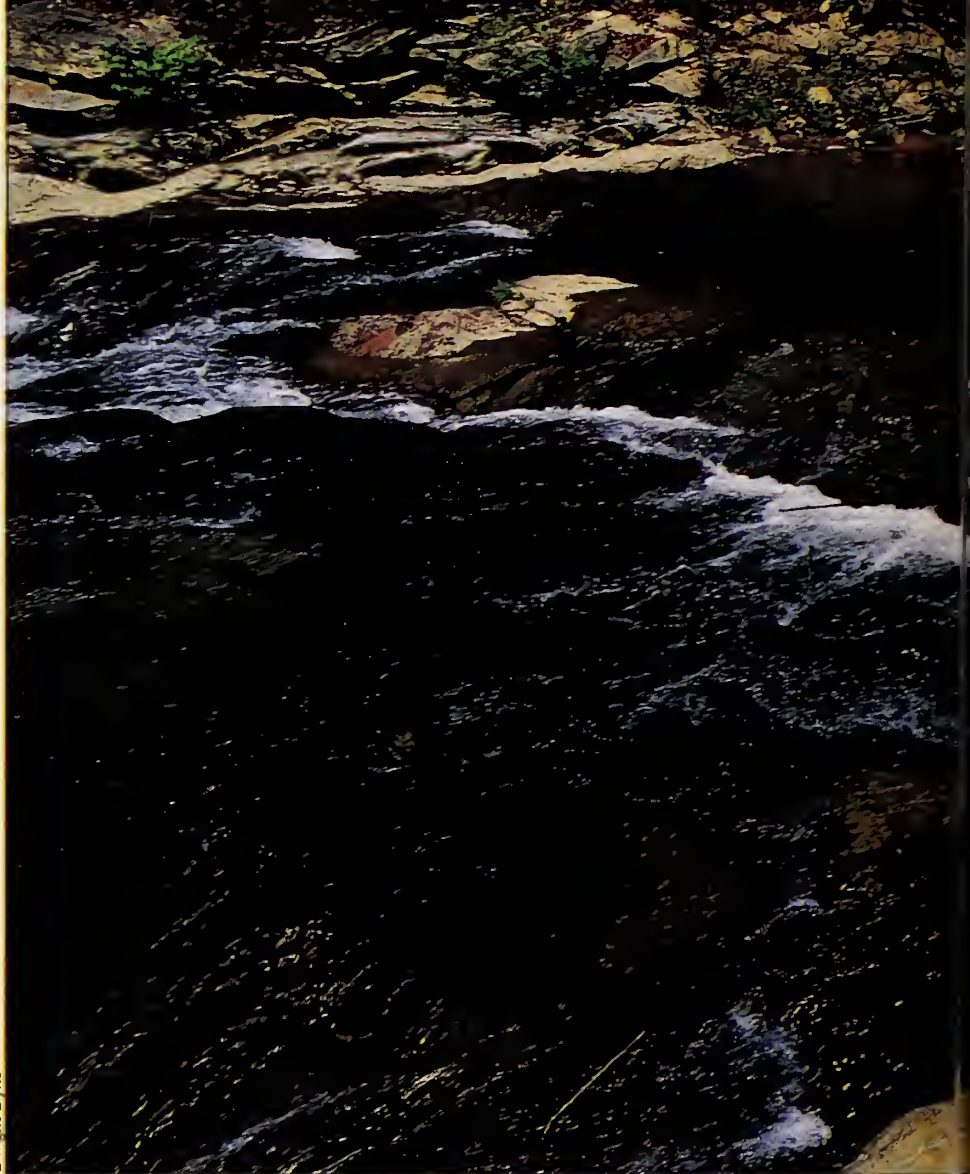
palachia. Virginia Department of Game and Inland Fisheries trout signs along the highway indicate the designated trout waters. Access to the stream is off U. S. Highway 23 and Alternate 58.

The North Fork of the Powell upstream from Pennington Gap is also stocked with trout.

"It's marginal trout water at the best," said Jessee, but we have permission to stock the streams and open them to public fishing. We do

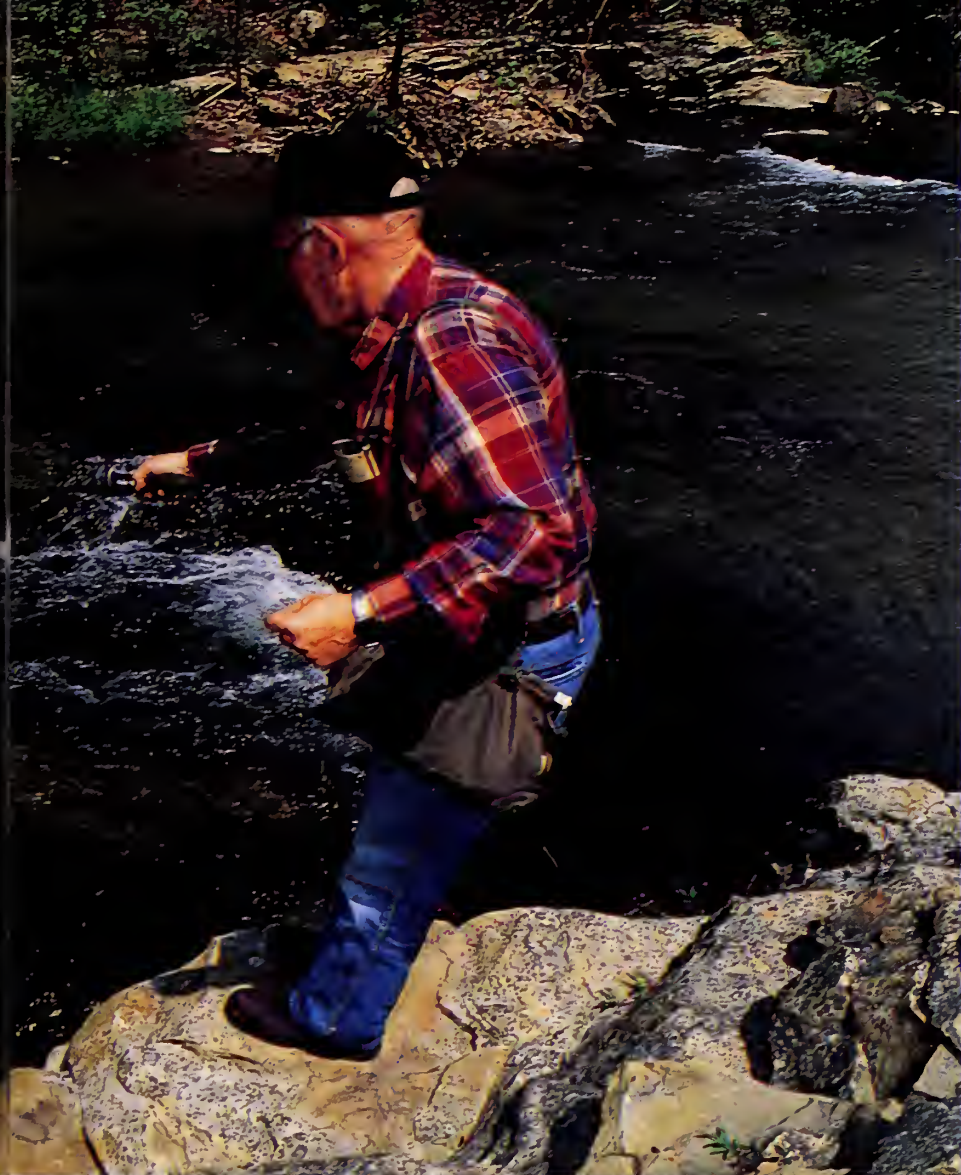
*The Powell River in southwest Virginia is a river of great potential; a secret that begs to be discovered by Virginia anglers.*

Dwight Dyke



Dwight Dyke





so to provide some trout fishing for local people." The rainbow is the trout stocked most heavily, but a few brooks and browns are released. The North Fork is the best trout water and it is stocked into early June. Stocking in the main stem is completed by approximately the middle of May.

The South Fork above Crackers Neck and downstream from Big Cherry Reservoir is a picture-book mountain stream tumbling over boulders and cascading down rock cliffs. "There are trout in there," a local angler told me. The best approach to fishing for native brook trout is to get a good topographic map, study it, mark some likely streams, and go do some scouting.

Big Cherry Reservoir on the South Fork of the Powell River is owned by the city of Big Stone Gap as its water supply. It offers limited angling opportunities upon the purchase of a permit from the city. It holds bass and a few trout, and is accessible by way of a 4x4 or jeep trail. It is probably not advisable to attempt it without a 4x4 vehicle. The option is to hike in using the jeep trail.

The Powell River obviously offers a rich variety of fishing opportunities—and it could offer more. Muskies have been stocked, but there has been no evidence of their survival. The water quality of the river has come a long way thanks to mining regulations and good enforcement, but it still has a ways to go. Mostly it is a matter of clearing up the sediment that gets into the stream. With the proper commitment from farmers, mining operators, and the various cities in the watershed, the potential of the river is significant. Next on the list is the need for better public access and good boating launching ramps.

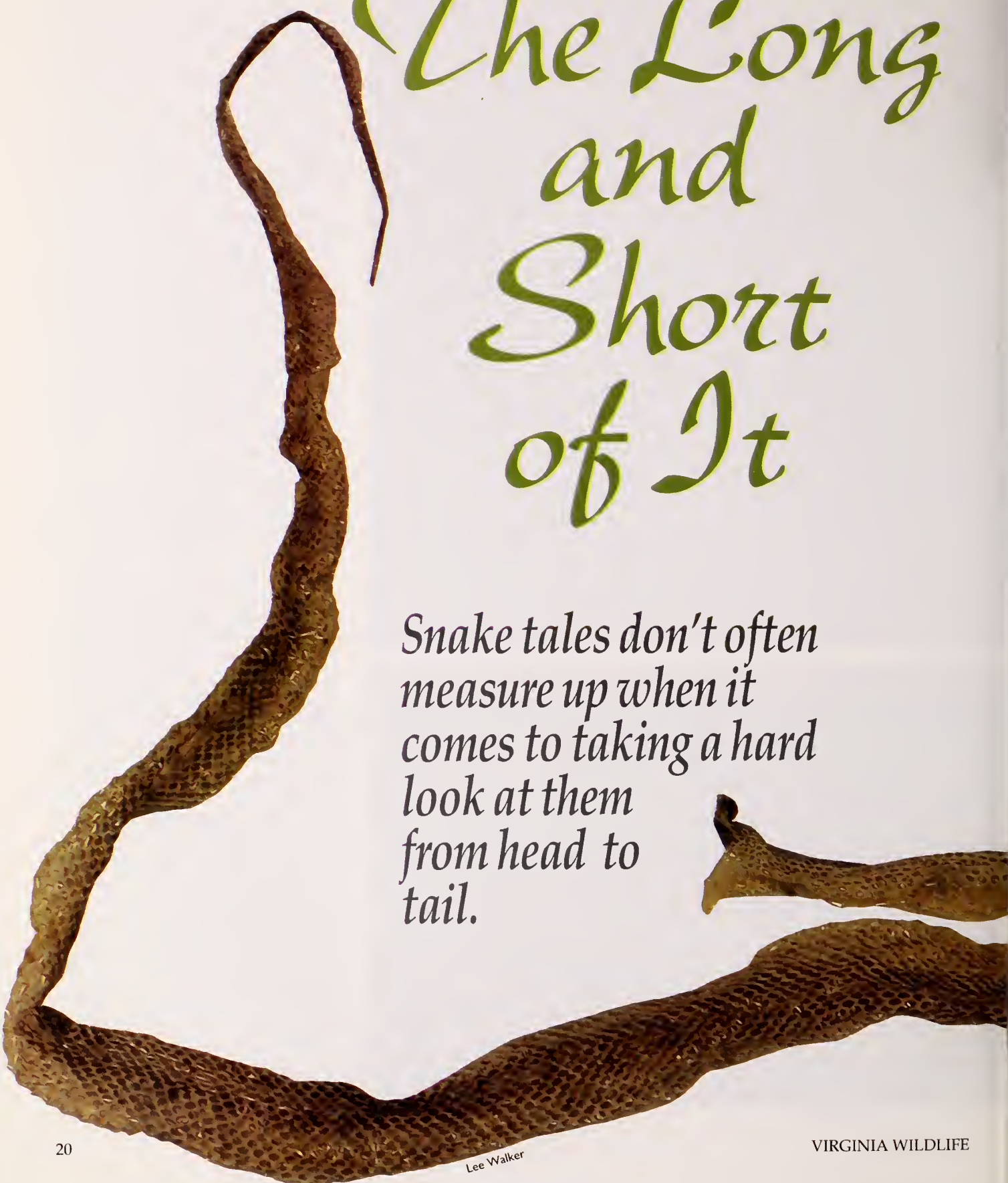
In time, more complete restoration of the Powell River system is certainly a possibility. In the meantime there is a rich variety of fishing there—and a future that's even better. □

*Bob Gooch is a freelance writer and frequent contributor to Virginia Wildlife.*



Dwight Dyke





# *The Long and Short of It*

*Snake tales don't often  
measure up when it  
comes to taking a hard  
look at them  
from head to  
tail.*

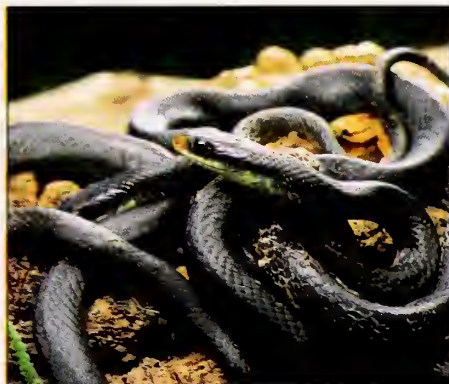




Rob Simpson



Rob Simpson



Rob Simpson

Snakes grow by shedding their skins, and shedding may occur several times a year, particularly if food has been plentiful. The shedding process can be observed in snakes once their eyes have turned opaque or blue (as in the black racer above). Once this color has disappeared, the snake will shed from head to tail in a few days.

by Joseph C. Mitchell

**W**e all know the fish stories about the one that got away. Well, snake stories are like fish stories. The one that "got away" is always bigger and longer than it actually was. And naturally, the size of the fish or snake increases each time the story is told.

In snake stories, this myth-making occurs for two reasons. People inexperienced with snakes find it difficult to assign an accurate length to a long, sinuous, and usually moving serpent. Plus, most of us round up sizes to the next highest foot or two because we just can't help making the story a little more dramatic.

But just how long do snakes *really* get? The answer to that question depends on geographic area. Worldwide, the longest snake recorded is an over 36-foot green anaconda in the South American Amazon. Here in Virginia, the longest recorded snake is the common black rat snake (*Elaphe obsoleta*) at 6 feet 8 inches. Black

rat snakes are also one of the longest snakes in eastern North America; the largest known was measured at 8 feet 5 inches.

Several other snakes native to the Commonwealth reach lengths of 5 feet or more. Nonvenomous species in this category include black racers (*Coluber constrictor*) at a maximum known size of 5 feet 11 inches, brown water snakes (*Nerodia taxispilota*) at 5 feet 9 inches, rainbow snakes (*Farancia erythrogramma*) at 5 feet 8 inches, and common kingsnakes (*Lampropeltis getula*) at 5 feet 4 inches.

On the venomous side, the largest cottonmouth (*Agkistrodon piscivorus*) from Virginia measured 5 feet 1 inch. The largest rattlesnake known from the state is a canebrake rattlesnake (*Crotalus horridus atricaudatus*) that reached 5 feet 6 inches, not including the rattle. Compared to some of the pythons, boas, anacondas in Asia, South America, and Africa, and a few other snakes in North America, snakes native to Virginia are not all that large.

On the other end of the scale, several snakes native to the Commonwealth do not exceed total lengths of 15 inches. The smallest of these is the southeastern crowned snake (*Tantilla coronata*) with a maximum recorded length of 9.9 inches in Virginia and 13 inches in eastern North America.

Rough earth snakes (*Virginia striatula*) are known to reach 11.6 inches in the state and

12.8 inches elsewhere in their range. Smooth earth snakes (*Virginia valeriae*) reach a maximum of 12.6 inches total length in Virginia and 15 inches elsewhere.

The majority of snakes in Virginia fall within a range of 16 inches to 4 feet for adults. The venomous copperhead (*Agkistrodon contortrix*) and nonvenomous corn snake (*Elaphe*



David Liebman

The largest rattlesnake recorded in Virginia is a canebrake that measured 5 foot six inches. This endangered reptile is known only to a few counties in southeastern Virginia and the above photo taken in Northwest River Park records one of the largest individuals ever captured in the state.

*guttata*) and eastern garter snake (*Thamnophis sirtalis*) serve as examples.

I should point out, however, that these reported sizes are subject to change. They are not absolute. It is entirely possible that you may en-





counter a very large individual somewhere in Virginia that exceeds the length reported for that species.

And why is this? Because snakes, like fish, keep growing throughout their lives. That is, there is no geneti-

their skin all in one piece. We humans don't notice the changes in our skin, but in snakes, the process is dramatic.

The actual process of shedding (*ecdysis* in scientific jargon) takes

place once the connections between the old and the new layers of scales are severed. This period can be observed in snakes when their eyes turn opaque or blue. Once this color has disappeared, the snake will shed in a few days. Shedding is initiated as the snake begins rubbing its head on rough objects to break the last of the connections between the layers. Rubbing and moving forward forces the shed skin backwards along the head and body. The snake literally crawls out of its old skin. The shed skin is turned inside out, and the fully exposed new skin is



R. W. Van Devender



R. W. Van Devender

Snakes grow throughout their entire lives, so the largest individual known to science may not be the largest in existence. The largest smooth earth snake (above) in Virginia was measured at 12.6 inches, while the largest rough earth snake (above right) recorded in Virginia measured 11.6 inches. Most snakes in Virginia fall within the range of 16 inches to 4 feet for adults, like the corn snake (right and opposite right). The largest corn snake measured in Virginia topped out at 48 inches.

cally-determined age or size at which individual growth stops. Most mammals (including humans) and birds, on the other hand, are preprogrammed by their genetic history and sometimes environmental conditions to stop growing at a certain age. This usually occurs about the time reproductive maturity is reached.

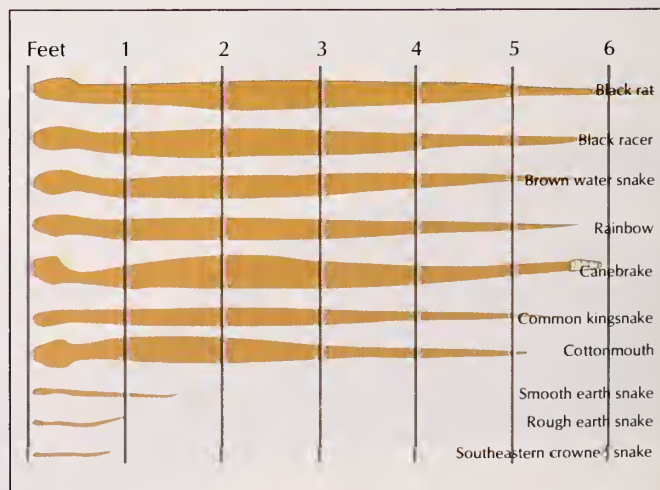
Although growth rates do slow down after sexual maturity, snakes possess the potential to grow their entire lives. So, the largest individual of a species known to science may not be the largest one in existence. It simply represents the largest one caught, accurately measured, and reported by the appropriate scientific authority.

Growth in snakes is accomplished by a complicated process involving the formation of a new layer of scales beneath the outer, older one and the subsequent shedding of the old layer. Reptilian scales do not grow after they are produced and they must be replaced for the snake to grow. Scales are like our skin; both are epidermal layers covering more sensitive tissues below. Our skin grows by shedding one worn out cell at a time, whereas snakes shed



David Liebman

It's easy to see that some snakes just naturally are bigger than others by a look at this simple chart (right), which illustrates the largest known specimens of a range of species of snakes in Virginia. Graphics by Pels.





clean, bright, and richly colored.

A few snakes have been observed to eat their shed skin in captivity, but this behavior has almost never been seen in nature and its function is unknown. Most snakes, however, will not eat their old skins. They are left behind and may be used by some birds and rodents for nesting material.

We humans find shed skins in houses and other buildings and think that there is a population of snakes about. But a single shed skin represents one snake at one short period in its life. In fact, several snake sheds usually indicates that one

can remain inactive for long periods of time without the need for much food energy. In fact, in captivity, snakes remain healthy when they are fed once every week or two. And in nature, large snakes may only

times are bad, the number of meals and shedding cycles are fewer. Thus, we cannot accurately determine the age of a rattlesnake by simply counting the number of segments on the rattle. The only way to really know a snake's age is to mark it at birth or hatching by clipping scales or implanting a glass-encased, electronically-readable



David Liebman



*Above: The largest recorded garter snake in Virginia measured 43.3 inches, a far cry from the over 36-foot-long green anaconda found in South America.*

snake has found a plentiful prey source.

Snakes do not shed their skins only once a year. The number of times shedding takes place depends on several factors. The most important factor is the number of times a snake has been able to eat during the active season. Other factors include: low seasonal temperatures, time and energy allocated to reproduction, and energy used in capturing prey and escaping predators.

Snakes do not require frequent meals like mammals and birds, because their body temperatures are determined by external sources like the sun or warm rocks. Thus, snakes

eat several large prey a year; some may only eat one big prey item all season. Thus, how many times a snake sheds its skin is directly related to the amount of energy it has been able to secure for growth in an active season. And growth depends on how much it eats.

Some people think that we can age a rattlesnake by counting the segments on an intact rattle. But, the addition of a new segment to the rattle at the base of the tail occurs each time shedding takes place. Rattlesnakes shed one to several times each year depending on how much food they have been able to put in their bellies. In a good year, when prey are plentiful, snakes will shed several times. When

pin in its body and recapturing it several times during its life.

Patterns of growth in snakes can be viewed as occurring in three phases: embryonic, juvenile, and post-maturity. Embryonic growth is the most rapid because of the ready supply of high-energy yolk. Juvenile growth is slower, but more rapid than adult growth. It depends on the difference between



the rate of energy obtained from prey and the energy lost in capturing prey and avoiding predators. Growth after maturity is reached is slow, and adult snakes may not grow at all in some years. This slow-down in growth is due to the energy allocated to mating and reproduction.

Given that snakes possess indeterminate growth, one could generalize that the largest snake is the old-

Records of captive snakes in zoos can, however, provide a clue as to how old some snakes can become in the absence of predators and other problems encountered in nature. Nonvenomous black rat snakes have lived as long as 23 years, common kingsnakes 22 years, and the small rough earth and smooth earth snakes 7 and 6 years, respectively. Venomous copperheads have been recorded as living 30 years, cotton-

length, and only one occasionally exceeds six feet.

But of course, a six-footer may be giant enough for some people. Come to think of it, a two-footer may become the tale of a lifetime. □

*Joe Mitchell is an adjunct professor in the School for Continuing Studies at the University of Richmond and the author of The Reptiles of Virginia published by the Smithsonian Institution Press.*



R. W. Van Devender



R. W. Van Devender



Rob Simpson

Not only is maximum size based on species, geographic location, age and nutrition, but sex also comes into play. In some species the males are larger than the females; in others, the role is reversed. **Clockwise from top:** southeastern crowned snake, rainbow snake, cottonmouth, copperhead.

est snake. This may or may not be an accurate statement because growth rates vary considerably among individuals in a population.

Growth, maximum size, and age are also related to sex. In some snakes, males are larger than females and in others the size relationship is switched. Sizes attained by each sex depends on the mating system employed by the species (see "The Battle of the Sexes," June 1994 *Virginia Wildlife*). The largest snakes in a population, regardless of sex, may have been those most able to capitalize on the prey resources available. How old these snakes are becomes another matter.

Many snakes do reach old age and most old snakes are among the largest in their population. But how old snakes become is difficult to ascertain in nature because of the problems in following snakes their entire lives.



David Liebman

mouths 13 years, and timber rattlesnakes as long as 30 years.

We humans will continue to tell stories about the big fish that got away or the giant snake seen slithering off into the woods. We know, however, that there are no "giant" snakes in Virginia. Our 30 species range from small to moderate in







David Liebman



David Liebman



Although snakes grow throughout their lives, growth rates slow down after sexual maturity, and are related to nutrition. For the black rat snake (juvenile featured **top middle**; adult featured **top right**), the way to an adulthood of monumental proportions is paved with frequent meals of fat rats.

The common kingsnake (**top left**) and the brown water snake (**above**) both reach similar sizes: the kingsnake has been recorded at 5 foot 4 inches in Virginia, while the longest brown water snake captured here topped out at 5 foot 9 inches.





# Mapping Your Strategy

## for Better Smallmouth Fly-fishing

*First, learn to pinpoint the areas where smallmouth bass hang out in our rivers, then map out your strategy to outwit them.*

by Harry Murray

Virginia's anglers have some of the finest smallmouth bass fishing which can be found anywhere. From the grinding rapids where the Shenandoah River forges a path through the mountains at Harpers Ferry, to the broad meandering James River above Rich-

mond, there is every type of action any fly-fisherman could desire.

In fact, fly fishing is a game well designed for a quest for this "gentleman of the warmwater species." Flies can be designed to effectively mimic the natural foods upon which bass feed and tactics can be finely tuned to duplicate the actions of these foods.





Physical stream features repeat themselves in various forms throughout all our smallmouth rivers. Learning to read these features and selecting the proper fly for each situation will guarantee fishing success.

Although there are times when it seems that smallmouth bass can be taken with almost any lure fished in any manner, the most consistent catches of larger fish will come by adapting tactics to meet the whims of the bass. An understanding of where, when, and how the smallmouth feed is the single most important skill a serious angler can develop.

In order to take maximum advantage of this endeavor, let's set up a

typical pool in a Virginia smallmouth river which contains a broad variety of the types of cover which are available to bass. We'll start at the uppermost portion of this pool and fish our way downstream.

The typical riffle entering the head of the pool is composed of a cobblestone bottom with the water running a foot to two deep. This is nursery water, and it is easy to fish. Use this as an ego builder or to train your local Boy Scout Troop, for the numerous juvenile bass here will strike a streamer with little hesitation.

The drill is to wade downstream and cast a fly such as a size 6 White Marabou Muddler across stream and retrieve it very slowly with an erratic stripping action. This enables even beginning anglers to maintain a tight line all the way to the fly, which simplifies strike detection. In fact, if you keep your hooks sharp, some of these bass will actually hook themselves when they take the fly in their mouths.

A little further downstream, where the riffle empties into the main part of the pool, the water averages three feet deep, but the larger boulders here often channel the currents to cut out deeper pockets. This causes the character of the river to change greatly, and I use two different tactics to fish it.

If the current is not excessively fast, I'll use the same streamer tactic I used further up in the riffle. However, since the water is deeper, I'll frequently use a fly such as a size 4 Shenk's White Streamer, which runs much deeper than the Marabou Muddler. This is the best imitation of the chub minnow I've ever found. These minnows abound in huge numbers in this type water, possibly explaining the great success the students in my fly fishing schools experience each year with these streamers.

Smallmouth bass hold right along the bottom below these riffles, so one should use a very slow retrieve when fishing streamers here. Not only will this help assure that the bass will get a better chance to actually see the fly, but in many

cases they seem to prefer a very slow fly action.

If the water is too fast and the pockets are too deep to cover effectively with the above streamer technique, I'll fish this area with nymphs. I'll actually get out on the bank, walk downstream, and then reenter the stream 100 feet or so below this heavy boulder-strewn section of the riffle.

Here I'll fish a nymph such as Murray's Hellgrammite or a Casual Dress Nymph dead drift by casting either straight upstream or up and across stream at a very slight angle. As the current pushes the nymph back downstream along the deep cuts beside the boulders, I watch very closely for the strike so I can set the hook before the bass detects it as a phony and ejects it. To aid in this, I use a nine-foot leader which has five feet of fluorescent Amnesia mono in the butt and three Scientific Anglers indicators scattered along its length. If I even just suspect I have a strike, I set the hook quickly with the rod and line-hand.

There are hardly any pockets or runs in this area which I cannot effectively fish with this upstream dead-drifting nymph tactic by carefully wading in below them and fishing them with short casts—30 feet is the maximum and even shorter casts will give you better control of the drift and strike detection. No, you won't scare these fish at this close range. Remember, you went to



Soc Clay

this tactic because the water was heavy. These rolling currents will mask your approach.

On the far side of the river, a back eddy has formed against the bank. These can vary greatly in size and the depth of water they hold. This



particular one is perfect. It is about 20 feet in diameter and the water in the center is about three feet deep. Thus you have two distinct areas for the bass to feed, prompting two different tactics.

The first area I fish in this back eddy is the outer edge where the main river currents brush along our pond of slower water. Wading downstream to a spot about 40 feet out in the river from the back eddy, I like to cast a streamer just inside the eddy and strip it across the interface where it meets the river. The bass are usually lying just inside the slow-water edge and strike the fly the instant it swings across in front of them. It is not at all unusual to catch several nice bass from each back eddy in this way.

The second tactic which is productive in these eddies is working the central area with top-water patterns, if the water is less than five feet deep. Bass here seem to be on the lookout for any food items which accidentally fall onto the surface. Since the eddies are close to the bank, these could be frogs, mice, crickets, grasshoppers, or even moths.

I've had some exciting action in these back eddies by casting patterns such as the Flying Hair Moth onto the surface, then teasing it across the surface in a fluttering manner much like the action of a real moth. Easy does it, for the bass here are accustomed to feeding at a leisurely pace; sometimes I'll receive jolting strikes just as I'm about to pick the bug up.

Downstream of the back eddy a mudflat against the bank holds many tadpoles. Since this water is shallow, the bass dash in, grab a quick meal, and return to the comfort of the deeper water. Sometimes I pick up several good bass along the

edges of the mudflat where it drops into the main flow of the river with a size 4 Whitlock's Hare Water Pup or Shenk's Black Sculpin, both of which match the tadpoles quite well.

At the lower end of the mudflat, an aquatic grassbed has developed which reaches from the bank out into the river about 30 feet and extends down the river about 100 feet.

The water here is about a foot deep close to the bank, but reaches three feet deep where it brushes the main current out in the river.

I can honestly say without any reservation that if I had only one type cover to fish in smallmouth rivers, it would be the aquatic grassbeds. The reason for this strong conviction is that they seldom let me down. Whether I'm fishing familiar

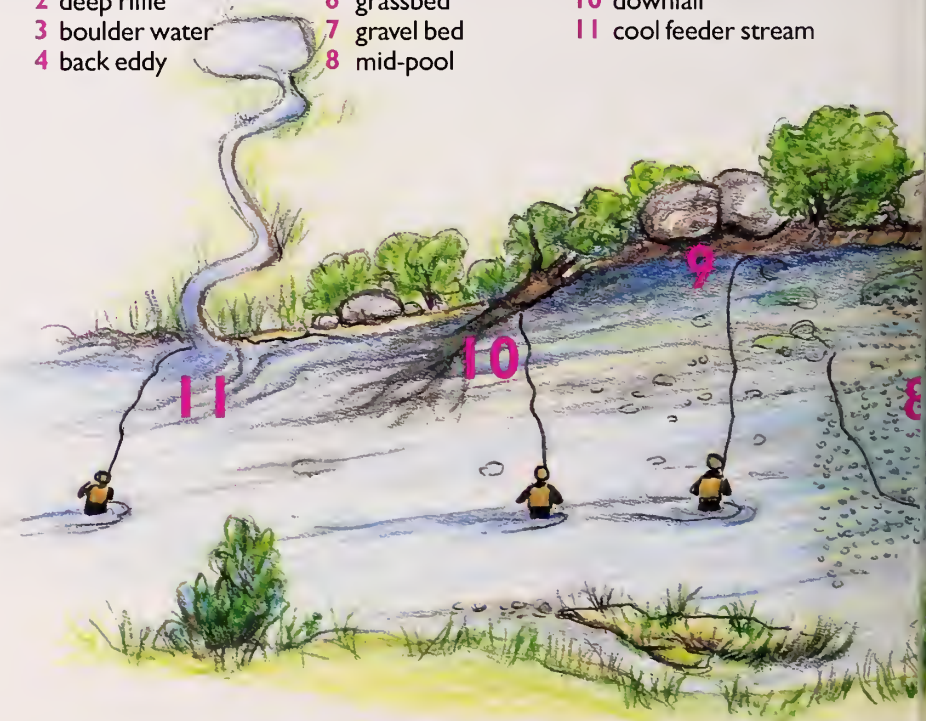


Dwight Dyke

### Section of river showing feeding areas and casting positions.

#### Feeding areas

- |                  |              |                       |
|------------------|--------------|-----------------------|
| 1 shallow riffle | 5 mud flat   | 9 undercut bank       |
| 2 deep riffle    | 6 grassbed   | 10 downfall           |
| 3 boulder water  | 7 gravel bed | 11 cool feeder stream |
| 4 back eddy      | 8 mid-pool   |                       |



*Reading a river is a three-step procedure. First, try to determine exactly where a smallmouth will be located. This could be an actual feeding station which he would select strictly for that purpose under specific conditions. It could be a holding or cruising area, located close to a main food source, or it may be a resting area.*



streams or prospecting on new waters, I can almost always take some nice bass from the grass beds, even if other portions of the rivers are unproductive.

The speed of the current, along with the density and uniformity of the grassbed dictates my tactics. For example, if there is only a moderate current tracing its path along the outer edge of the grassbed, I usually fish this with surface bugs as I wade downstream about 40 feet out in the river.

If however, there is a very strong current at this interface, I'll go underwater with nymphs and streamers. Here, I use extreme care to cast my flies right against the grass since the fish seem to snuggle in tight so the grassbed will break the force of the current. Frequently the strike will occur within the first several seconds, for the bass are here to feed and they don't want to give their prey a chance to evade them.

If the grassbed contains open-

water pockets the size of card tables spaced through its length, these can be gold mines. Some of the best bass I catch each year come for these areas. I like to cast a popper such as the Shenandoah Chugger dead center into these areas and give it one solid chug; usually that's all I have time for before the bass crashes the bug.

A gravel bar takes off on downstream for about 60 feet from where the grassbed ends. Shiner minnows can be found here by the thousands, but since the water averages only about a foot deep, our largest bass will not hold here for long periods. Rather, they will feed on the gravel bars in a hit-and-run fashion, often like a thief in the fading light, as they rush in for a quick meal before sneaking away to the security of the deeper water.

Often, we are alerted to bass feeding on these gravel bars by the commotion the minnows make as they try to evade the marauding fish. The

instant I see these minnows racing across a gravel bar, I'll cast a streamer such as a Silver Outcast out in front and beyond them and bring it to life quickly in an attempt to attract the bass I know is in hot pursuit.

If I do not see any activity over the gravel bar, I'll cast a Silver Outcast streamer back on the edge of the bar and strip it slowly out into the deeper water in the main part of the river. In many cases, I'll get a solid strike as soon as the fly enters the deeper water. I suspect the bass hold here where they have the security of the deeper water, while remaining quite close to a good food source.

As the gravel bar tapers out into mid-river, the depth of the water increases to about four feet, the current increases, and the stream bottom is covered with more stones in the softball-size range. There are great numbers of madtom minnows here, but since they stay well hidden under the rocks except in very low light, one would expect the best action

## Reading a Smallmouth River





here early in the morning and late in the evening.

I like to fish these mid-pool areas down and across stream with streamers such as Shenk's Sculpin and the Black Strymph. The slower and deeper I fish these patterns, the more big fish I take.

Where this stronger current funnels in against the far high bank, it has undercut it for about 30 feet. These undercut banks provide some of the finest fishing in the whole river. The bass apparently feel quite secure in the shade and overhead cover these banks provide and are willing to feed most of the day. I've had some exciting, memorable days when one bass after another smashed my size 8 Dave's Grasshopper twitched along these high banks.

Just downstream of the undercut bank a large oak tree has fallen into the river. Its roots are still tentatively grasping the bank, but the current has pivoted the treetop downstream. Its intermingled limbs provide a tempting, though insecure, resting area for minnows and nymphs, for the bass can easily slip out from under the trunk and snatch them for a quick meal. Additionally, the trunk itself provides a resting area for frogs and other desirable morsels.

I like to fish these downfalls by positioning myself about 40 feet out and slightly upstream of them. First, I'll cover the branch area with a surface bug such as Tappley Hair Bug and gradually fish my way back along the trunk by lengthening successive casts. I use care to quickly fight the bass I hook around the limbs out into the open water so they will not spook others back under the trunk. In this way, I may be able to take several bass from the limb area and a few more back under the trunk where it meets the bank.

If the water under this downfall is over four feet deep, it may be necessary to go underwater with nymphs and streamers to tempt the bass. I suspect that when the water is this deep in these areas, either the bass are not aware our surface bugs are

up there, or they are not willing to swim all the way up there for them.

Just downstream of our oak tree a small feeder stream enters the river which can influence our fishing in several ways. For one thing, the feeder stream is cooler than the river during the summer. And, as the main stream gets warmer and warmer in mid-August, I'll often slip in below these feeders where the bass feed more aggressively in the cooler water.

Additionally, since these feeder streams draw their water supplies from localized areas, they are quite susceptible to summer thunderstorms. A sudden downpour can easily cause a feeder to become quite muddy, which in turn discolors the river below where it enters. All of this is easily apparent, but what

dependent upon how far out into the river the wild water reaches. If, for example, this belt of discolored water is 100 feet wide, I'll frequently fish it down and across current with streamers, staying out in the clear section of the river so I can swim my flies across this interface where the main stream buffers the turbid water. This can take some large bass which apparently feel secure in the slightly colored water.

If the feeder stream is small and there is only about a 30 foot strip of discolored water along the side of the river, I prefer to fish it upstream with nymphs. Even a small feeder can push milky water downstream several hundred feet, so I'll start here at the lower reaches and fish right up to the feeder.

These physical stream features re-



*Aquatic grass beds are usually a gold mine for smallmouths. Try fishing these areas with surface bugs.*

many anglers fail to realize is how great the fishing can be in the slightly turbid section of the river below the feeder. On many occasions, taking advantage of this "quick water" has enabled me to convert mediocre days into wonderfully memorable trips.

The tactic I use to fish this slightly discolored strip of the river is depen-

peat themselves in various forms throughout all of our smallmouth rivers. By using this information as a starting point in evaluating your home water I'm sure you will enjoy some excellent smallmouth angling this season. □

*Harry Murray is a freelance writer who teaches fishing and fly tying in Edinburg, Virginia.*



# Photo TipS

By Lynda Richardson

## Deciphering Depth of Field

“So, what exposure are you using?” I looked up to see a young man staring down at me.

“I’m experimenting,” I said with a smile turning back to the viewfinder to continue my study of a patch of delicate flowers.

“It looks to me that if you’re shooting Kodachrome 64, in this light it would have to be a setting of...oh... 125th at f8.0. Try that in your experiment.”

I sat back on my heels and looked up at him again. Then, I looked at my camera firmly locked down on my mega-sturdy, industrial-strength tripod. There was no wind blowing, not a puff, and the red flowers stood unconcerned in the perfect diffused light, as motionless as the Queen’s guards at Buckingham Palace.

Now my guard was up. “Excuse me, but why do you think that exposure is going to work for me?”

The guy shook his head, looking at me with a look that seemed to indicate I’d just made the greatest faux pas this side of the Appalachians. “You mean you’re NOT using Kodachrome 64?”

I took a deep breath. “That was a good exposure suggestion, but it won’t work for me in this situation. I am shooting exposures like 15th at f22.0. Since my subjects aren’t going anywhere, the wind isn’t blowing, and my camera is on a tripod, it’s the perfect opportunity to shoot this scene the way I saw it when I first passed this way. I want everything in focus.”

Many people are not aware of what an important tool f-stops (or aperture settings) can be to their photography. They plunk a roll of film in their cameras, set the shutter speed on one setting like 125th and shoot everything by adjusting the f-stops.

F-stops control depth of field and depth of field is your control over how much is in focus in front of and behind your subject. Having the ability to control depth of field can dramatically change your vision for photographing subjects in the future! An average photograph can be made incredible just by using your knowledge of depth of field.

Depth of field starts with that little moveable ring around the lens of most SLR cameras. This ring controls the aperture settings or the f-stops of the lens. These stops are numbered and each lens may have different starting and ending numbers but on the average all lenses usually have the following numbers: f2.8, f4.0, f5.6, f8.0, f11.0, f16.0, f22.0.

These numbers indicate the size of the lens opening when an exposure is made. The bigger the number, the smaller the lens opening. The smaller the number, the larger the lens opening. Now here comes an important thing to remember. The larger the lens opening (f2.8, for example) the less that is in focus around your subject. The smaller the lens opening (f22.0, for example) the more that’s in focus around your subject. Once you’ve got this fact super-glued to your brain, with a little practice and experimentation, you, too, will be in control of depth of field.

Put your camera on a tripod. Pick a subject, look through the viewfinder and focus on it. Notice what is in front of and behind your subject. Is it important to keep the background and foreground in focus? What if nothing but the whole subject was in focus? What if only the subject’s eye was in focus? What if the whole scene was in focus?

What happens if you move your camera so that the green leaves from a low hanging tree limb are close to the lens but you can still see your subject a short distance away? How would this affect your photograph if the leaves were in focus? How would your subject look if the leaves were out of focus?

An important aspect of depth of field is that it can be used to emphasize subject matter. By selecting a narrow depth of field (meaning that less would be in focus because you were shooting with a small aperture number like f2.8), you can create a photograph where the subject is in focus and everything else in front of and behind is out of focus. The soft “halo” that is formed by the surrounding out of focus objects can create a frame around your subject. By selecting colorful or neutral “frames” (or green leaves in the foreground) you can dramatically adjust the emphasis on a colorful or neutral subject. This technique is particularly effective when shooting *portraits* (hint, hint).

To better understand depth of field, I would recommend a little bit of experimentation. Pick a subject and try photographing it with a narrow depth of field (maybe f2.8) and a wide depth of field (possibly f22.0). Match your shutter speed to make a proper exposure. Bracket by shutter speeds, not f-stops. Write everything down in a notebook so you can look back and compare the results. And stay tuned. For, in the next issue of *Virginia Wildlife*, “Photo Tips” will delve further into the secrets of depth of field! □





# Safety

by Col. William Antozzi, Boating Safety Officer

## Navigation Aids Damaged

Vandalism of aids to navigation is a dangerous, costly, and senseless act. Many of the aids which are vandalized require thousands of dollars to replace or repair, further taxing already burdened Coast Guard facilities. The vandal who casually shoots out the optics of a lighted aid or in other ways defaces an aid may well be endangering the lives and property of the mariners who depend on these aids for safe navigation. Title 33, Code of Federal Regulations, Parts 70.05-5 state: "No person shall take possession of or make use of for any purpose, or

build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereof or otherwise, or in any manner whatever impair the usefulness of any aid to navigation established and maintained by the United States." (CGFR 52-15, 18 F.R. 12, Jan. 1, 1953)

"Every person and every corporation that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of 70.05-1 shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding \$2,500 or less than \$500, or by imprisonment for

not less than thirty days or more than one year, or both, one half of such fine to be paid to the person or persons giving information which shall lead to conviction." (CGFR 52-15, 18 F.R. 12, Jan. 1, 1953)

Boaters and other citizens are urged to report cases of vandalism to the nearest Coast Guard station or call the Fifth Coast Guard District, Aids to Navigation Office, at (804) 398-6486 collect. Information pertaining to names, times, places and descriptions of boats or vehicles will be helpful in prosecuting malefactors. □





# Habitat

by Nancy Hugo

## Queen Anne's Lace

It's hard to imagine summer without Queen Anne's lace, but America was once without it. Believe it or not, this beautiful queen of our meadows is not a native wildflower; it was brought over as a culinary and medicinal plant by the Puritans and escaped their gardens into the wild. So established is it now along roadsides, in waste places, and in fields that it's one of the few wildflowers we can pick with abandon, knowing its status is secure.

Farmers, some of whom may wish we would pick it to extinction, call it Devil's Plague, because it can be a pest in crop and forage areas. Bird's nest plant is another of its common names. The bird's nest name derives from the fact that after blooming, the flowering umbel (the umbrella-like structure that holds the tiny white florets) curves inward to form a structure that looks like a bird's nest.

The name "Queen Anne" refers to Anne of Denmark, wife of James I, who was famous for her love of fine clothes and fine lace. It doesn't refer to Queen Anne, the last of the Stewarts, who was famous for her needlework, although that's what I was taught as a child. I may still pass that story along to my grandchildren because it makes a good tale to say that the drop of maroon in the middle of Queen Anne's lace is there because Queen Anne spilled a tiny drop of blood on the lace when she nicked herself with her needle.

Evidently, in the court of James I, Queen Anne's lace was used to make a fashion statement, but it wasn't the flowers that were used, it was the finely divided leaves. According to James I's herbalist John Parkinson, "The beauty whereof allureth many Gentlewomen oftentimes to gather the leaves, and sticke

them in their hats of heads or pin them on their armes instead of feathers."

Queen Anne's lace is a biennial, which means it produces a plant (a rosette of ferny leaves) one year, then it flowers, sets seed, and dies the next year. Its foliage is the larval food of the black swallowtail butterfly and its flowers provide nectar to over 50 species of insects, including wasps, beetles, ants, and flies. In fact, the drop of "blood" at the center of Queen Anne's lace's umbel of tiny white flowers (about 2,500 of them per flat flower cluster) may actually be a kind of decoy to attract insect pollinators. According to nature-writer Jeanne Goode, a passing



Queen Ann's Lace; photo by Hal Horwitz.

insect may see the dark spot at the center of Queen Anne's lace's flower cluster, mistake it for another insect, and land to share the bounty.

Queen Anne's lace (*Daucus carota*) is a member of the parsley family and an ancestor of our cultivated carrot. Although its second-year roots are too tough to eat, the cooked roots of first year plants, though thin and bitter, are reportedly higher in vitamins A and E than cultivated carrots. The leaves of the plant are recommended for adding flavor to soups and stews, and the seeds (as many as 4,000 per plant)

can be used like caraway in cakes and breads. Historically, the plant's roots, boiled in wine, were used to "helpeth constipation," and a tea made from Queen Anne's lace seeds is reportedly still recommended by herbalists to relieve stomach ailments.

Planted at the back of a wildlife garden, Queen Anne's lace combines beautifully other summer-flowering plants that attract butterflies like purple coneflowers and butterfly weed. According to Harry Phillips (*Growing and Propagating Wildflowers*, 1985), seeds of Queen Anne's lace can be collected after they have turned brown (about three or four weeks after flowering) and planted in an open sunny area.

They germinate best, he says, if sown at the beginning of the growing season or at the end of the growing season, so if you collect seeds in July, wait until late summer or fall to sow them or sow them early the next spring. According to Phillips, the Queen Anne's lace seeds will keep as long as six years in a dry, sealed container in the refrigerator. I've also transplanted young Queen Anne's lace plants from one part of our property to another (sometimes succeeding in keeping them alive, sometimes not), but the plants don't really like to be moved because of their carrot-like tap roots. I've found the best way to get them going in the semi-wild border is to learn to recognize the ferny foliage of the young plants and avoid pulling them up as weeds when they sprout where you want them, because you'd be surprised how often they seed into borders by themselves. Remembering that this plant originally escaped from Puritans' gardens makes sneaking it back in seem quite proper. □



# Recipes

By Joan Cone

## Enjoy Veal? You'll Relish Cownosed Ray

It literally flies through the water in search of clams and other goodies. It generally weighs more than 30 pounds and puts up a tremendous battle, especially on light tackle. Many fishermen throw them back, a huge mistake if you enjoy fine dining. I'm talking about the cownosed ray, a stingray relative quite common in Virginia waters.

Once boated and killed, the first job is to remove the wings as near the body as possible. These you keep, the body can be discarded. Ice the wings down, and back at port, fillet them, an easy job because of the transverse sheet of cartilage which runs through the center. After filleting, skin your fillets. The result is large fillets of mottled firm flesh which taste much like veal. A ray of about 40 pounds will yield approximately six pounds of boned, skinned fillets ready for the pan.

### MENU

*Brandied Crab Hors d'oeuvre*  
*Sautéed Ray Fillets*  
*Snap Pea, Potato And Chive Sauté*  
*Creamy Cucumbers*  
*Peach Plum Fruit Pie*

#### Brandied Crab Hors d'oeuvre

1 pound backfin crab meat, cartilage removed  
 2 tablespoons butter or margarine  
 1/4 cup fresh parsley, finely chopped  
 2 tablespoons brandy  
 1/8 teaspoon salt  
 1/8 teaspoon white pepper  
 Pinch nutmeg  
 Pinch paprika  
 1 large lemon

In a large skillet or electric wok, melt butter. Add parsley, brandy, salt and pepper, nutmeg, paprika and the juice of one lemon. Heat until hot. Add crab meat and toss lightly to heat and coat. Be careful not to break up lumps. Serve with crackers as an hors d'oeuvre.

#### Sautéed Ray Fillets

1 to 1 1/2 pounds cownose ray fillets, skinned  
 1 egg beaten or 1/4 cup egg substitute  
 Dry bread crumbs  
 Salt and pepper  
 3 to 4 tablespoons butter or margarine

Dip fillets in egg and then roll in dry bread crumbs seasoned with salt and pepper. Heat butter in a large skillet and sauté meat until browned on one side. Turn fillets over with a spatula and quickly brown on other side, about 10 minutes total cooking time or until meat is cooked through. *Do not overcook*, as ray toughens with overcooking. Serves 3 to 4.

#### Snap Pea, Potato and Chive Sauté

1 pound red-skinned potatoes, quartered  
 2 tablespoons olive oil  
 10 ounces sugar snap peas, trimmed  
 1/4 cup chopped fresh chives or green onions  
 Salt and pepper to taste

Cook potatoes in large pot of boiling water until just tender. Heat oil in heavy skillet over medium heat. Add snap peas and sauté 2 minutes. Add potatoes and sauté until heated through. Mix in chives. Season with salt and pepper. Serves 4.

#### Creamy Cucumbers

1/3 cup sour cream  
 1 tablespoon sugar  
 2 tablespoons chopped fresh parsley  
 1 tablespoon chopped fresh chives  
 2 tablespoons tarragon vinegar  
 3 small cucumbers, thinly sliced (about 3 cups)

Combine first 5 ingredients; add cucumber slices, tossing to coat. Cover and chill thoroughly. Serve with a slotted spoon. Makes 6 to 8 servings.

#### Peach Plum Fruit Pie

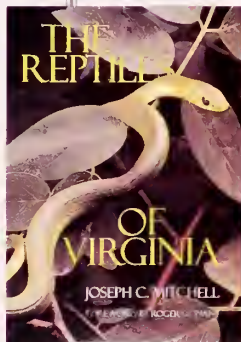
1 package (15 ounces) Pillsbury All Ready Pie Crusts  
 1 teaspoon flour  
**FILLING**  
 2 1/2 cups sliced, peeled peaches  
 2 1/2 cups sliced, peeled plums  
 3/4 cup sugar  
 3 tablespoons cornstarch  
 1/4 to 1/2 teaspoon cinnamon  
 1/4 teaspoon nutmeg  
 2 tablespoons butter or margarine  
 Milk  
 Sugar

Heat oven to 425° degrees. Prepare pie crust according to package directions for two-crust pie using a 9-inch pie pan.

In large bowl, combine peaches, plums, 3/4 cup sugar, cornstarch, cinnamon and nutmeg; mix lightly. Spoon into pie crust-lined pan. Dot with butter. Top with second crust; flute. Brush crust with milk and sprinkle with sugar. Cut several steam vents using a sharp paring knife. Bake at 425° degrees for 50 to 60 minutes or until golden brown. Makes 8 servings. □

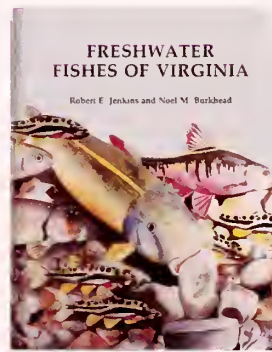


# A Stunning Addition to Your Library



## The Reptiles of Virginia

by Joseph C. Mitchell.  
\$40 plus \$2.25 each  
postage and handling.  
This is the first complete  
catalogue of Virginia's  
snakes, lizards, and tur-  
tles. Featuring 63 full-  
color illustrations, distri-  
bution maps and easy-to-  
use identification keys in  
384 pages. Order from:  
Smithsonian Institution  
Press, Blue Ridge Sum-  
mit, PA 17294-0900. Call  
toll-free 1-800-782-4612.



## Freshwater Fishes of Virginia

by Robert E. Jenkins and  
Noel M. Burkhead. \$85.  
This authority on the Vir-  
ginia's fishes takes an in-  
depth look at 210 fish  
species. Over 1,000 pages  
with 40 color plates.  
Order from: Virginia Chap-  
ter, American Fisheries So-  
ciety, c/o VDGIF, P.O. Box  
996, Verona, VA 24482.  
Make checks payable to VA  
Chapter, AFS.



